

REMARKS

In the Office Action, the Examiner objected to claim 21 due to informalities. The Examiner also rejected claims 17 and 20-22 under 35 U.S.C. § 102(b) as being anticipated by Allen et al. (U.S. Patent No. 6,420,441, hereafter “Allen”); rejected claims 18 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Allen; and rejected claims 24-28, 30, 31, and 33 under 35 U.S.C. § 103(a) as being unpatentable over Allen in view of Moghadam et al. (U.S. Publication No. 2003/0232495, hereafter “Moghadam”). The Examiner also objected to claims 19, 29, and 32¹.

Applicants gratefully acknowledge the Examiner’s indication of allowable subject matter in claims 19, 29, and 32.

Claims 17 and 21 have been amended to improve readability. Claims 17-33 are pending in the above-captioned patent application.

With respect to the Examiner’s objection to claim 21, Applicants have amended claim 21 to recite “*said semiconductor substrate*” (emphasis added) consistent with the Examiner’s recommendation at page 2 of the Office Action. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the objection to claim 21.

Applicants respectfully traverse the Examiner’s rejection of claims 17 and 20-22 under 35 U.S.C. § 102(b) as being anticipated by Allen et al. Independent claim 17 is not anticipated by Allen because the applied reference fails to teach each every element of the claim. In particular, Allen at least fails to teach the claimed porous insulating film

¹ Although the Examiner’s statement on the cover sheet of the Office Action reads that claim 33 is objected to, the subsequent discussion in the text of the Office Action indicates that claim 33 has been rejected, while claim 32 is objected to. Applicants therefore assume that the Examiner intended to indicate on the cover sheet of the Office Action that claim 32 is objected to.

“irradiated with an electron beam to enlarge the size of said porous insulating film,” as recited in claim 17.

The Examiner contends that Allen teaches “irradiating the insulating film with electron beam to remove porogen would enlarge pores in the porous insulating film” (see Office Action at page 3, citing Allen at col. 2, lines 22-31; col. 3, lines 50-63; and col. 10, lines 10-28.) Although Allen teaches “at least partially remov[ing] the porogen,” the reference also discloses doing so “without adversely affecting the dielectric matrix material.” Col. 10, lines 19-22. In particular, Allen teaches “a porous dielectric material having voids . . . where the size of the voids is substantially the same as the particle size of the porogen” (Col. 12, lines 23-25), such that “the decomposition of the polymer particle was accomplished . . . without expansion of the polymer.” Emphasis added. Col. 21, lines 12-14, see also lines 35-39. Accordingly, Allen fails to teach Applicants’ claimed step of “enlarg[ing] the size of said porous film.” Rather, Allen teaches away from it. Accordingly, Allen does not anticipate claim 17. Claim 17 is thus allowable over Allen, and claims 20-22 are allowable at least due to their dependence from claim 17.

Applicants respectfully traverse the Examiner’s rejection of claims 18 and 23 under 35 U.S.C. § 103(a) as being unpatentable over Allen. In formulating this rejection, the Examiner cites *In re Aller*, and contends that “the selection of reaction parameters such as temperature and concentration would have been obvious.” Office Action at page 5. Applicants respectfully submit that the holding of *In re Aller* is not applicable to the current application. Specifically, for *In re Aller* to apply, it must first be recognized that the parameter is result-effective. See M.P.E.P. § 2144.05 II. B.

Here, the Examiner has not established that parameters of pore diameter and weight average molecular weight are result-effective. Therefore, the pore diameters recited in claim 18 and the weight average molecular weight recited in claim 19 would not have been obvious over Allen. Accordingly, claims 18 and 23, are allowable at least due to their dependence from claim 17.

Applicants respectfully traverse the Examiner's rejection of claims 24-28, 30, 31, and 33 under § 103(a) as being unpatentable over Allen in view of Moghadam. Claims 24-28, 30, 31, and 33 depend from claim 17 and thus require all the elements of claim 17. As noted above, Allen fails to teach or suggest at least "enlarge[ing] the size of said porous film," as recited in claim 17. Moghadam also fails to teach the claimed step of "enlarg[ing] the size of said porous film," and the Examiner does not rely on Moghadam for such teachings. Accordingly, claims 24-28, 30, 31, and 33, are also allowable, at least due to their dependence from claim 17.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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By: _____

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